LP-RSM003-000C
Room Command Module

Installation Instructions

P/N 24-85737-1242 Rev. B
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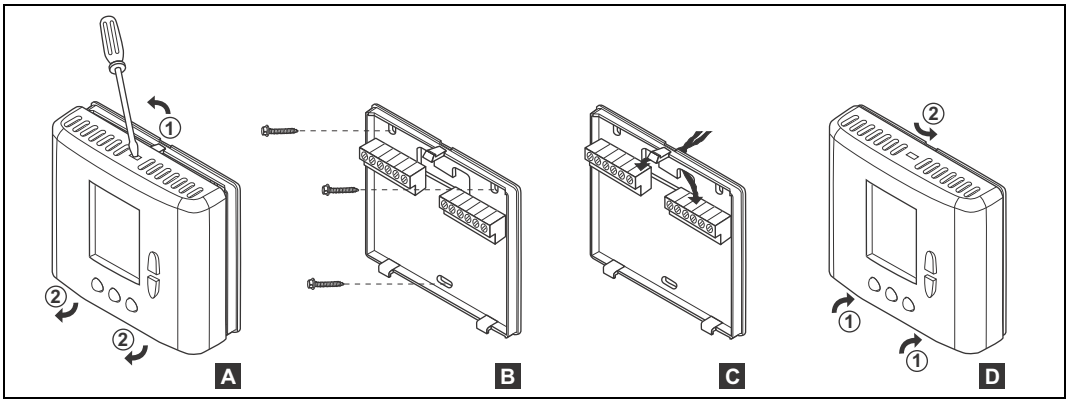

Figure 1: Mounting

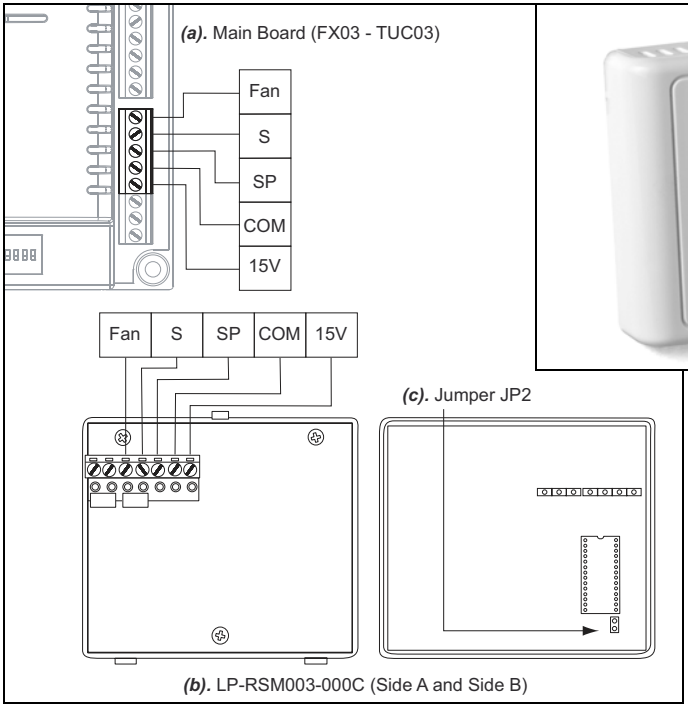

Figure 2: Wiring

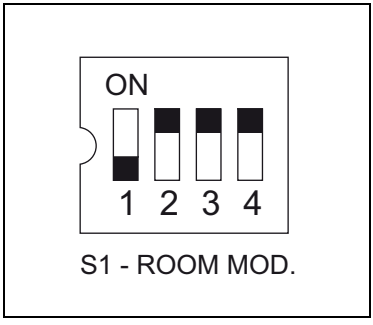

Figure 3: DIP Switch "S1 - ROOM MOD."

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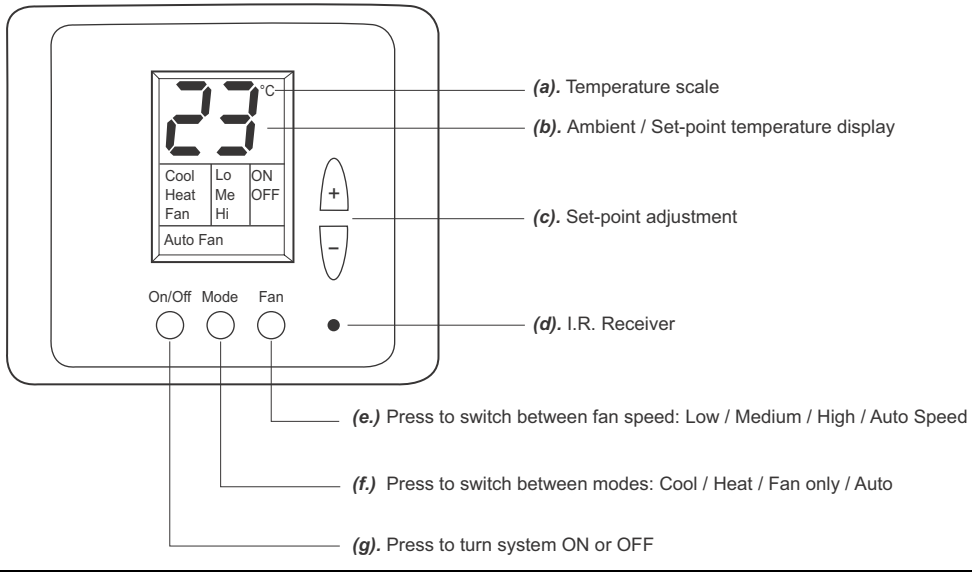

Figure 4: Operating Instructions

READ THIS INSTRUCTION SHEET AND THE SAFETY WARNINGS CAREFULLY BEFORE INSTALLING AND SAVE IT FOR FUTURE USE

General Features

- The LCD display, along with the "+" and "-" adjustment buttons, allows the occupant to view and adjust the set-point temperature in the controller.
- The current operating mode and fan speed are shown on the LCD and can be changed using the "Mode" and "Fan" buttons respectively.
- The unit can be turned ON or OFF using the "On/Off" button.

Tools

- Philips head screwdriver (3 mm and 5 mm)
- Flat head screwdriver (4 mm)

Installation

The LP-RSM003-000C Room Command Module is designed for wall mounting in the room to be controlled. It should be located where the occupant can easily read the LCD display and use the controls.

If the built in temperature sensor is being used to measure room temperature, the module should be placed where the temperature is representative of the general room conditions. Cold or warm air draughts; radiant heat and direct sunlight should be avoided.

General points to follow:

- Disconnect power to the main board before installing the unit.
- The unit should not be installed on an outside wall or where there is an air draft.
- The unit must not be exposed to a direct sunlight.
- The standard height to install this unit is 1.5 meter (5 feet) from the floor.

Installation procedure:

Figure 1: Mounting

(A). *Separate the front panel from back panel by pressing the tongue located in the top of the unit and pull the back panel out.*

(B). *Line the back panel up against the wall or flat surface. Install three screws as required.*

(C). *Make electrical connections as shown on enclosed electrical wiring diagram.*

(D). *Install the cover to the back panel; first the two tabs on the bottom and then the top tongue. Push until tight against the wall*

Wiring Connections

WARNING: Risk of Electric Shock and Property Damage. Disconnect each of multiple power supplies before making electrical connections. More than one disconnect may be required to completely de-energize equipment. Contact with components carrying hazardous voltage can cause electric shock and may result in severe personal injury or death.

WARNING: The integrated circuits in the controller are sensitive to static currents. Take suitable precautions.

Figure 2: Wiring

(a). *Main Board - (FX03 or TUC03)*

(b). *LP-RSM0003-000C*

(c). *Jumper JP2*

Before connecting or disconnecting any wires, ensure that all power supplies have been switched off and all wires are potential-free to prevent equipment damage and avoid electrical shock.

All wiring to the module is low (safe) voltage and must be separated from power line voltage wiring.

Do not run wiring close to transformers or high frequency generating equipment. Complete and verify all wiring connections before applying power to the controller to which the module is connected.

Jumper Settings

Jumper JP2 located at the bottom of the board as shown in the drawing, is used to define the location of the ambient temperature sensor as follows:

- **Open** Temperature readings from controller (T1)
- **Short** Temperature readings from RSM Built-in Sensor (Default)

Figure 3: DIP Switch "S1 - ROOM MOD."

When connecting the LP-RSM003-000C to the controller, DIP switch "S1 - ROOM MOD." on the controller must be configured as shown in Figure 3.

Note that the fan speeds selection and mode selection depends on the configuration of the controller (DIP switch "S2 - CONFIG" and T2 sensor temperatures) as follows:

- When S2.3 is configured to "2-Pipe" - the mode selection through the panel is unavailable and "LC" will appear on display when the "Mode" button is pressed.
  (T2 < 20 °C → COOL, T2 > 30 °C → HEAT)
- When 20 °C < T2 < 30 °C the thermostat will automatically turn OFF and all buttons will indicate "LC" (lock) when pressed.
- When S2.5 and S2.6 are configured to "1 Speed" - the fan speed selection is unavailable.
  The display will show no indication for the fan speeds and the "Fan" button will be disabled.
- When S2.5 and S2.6 are configured to "2 Speeds" - only low, high and auto speed can be selected.

The Auto Fan function can be disabled through the controller network profile.

Operating Instructions

Figure 4: Operating Instructions

(a). *Temperature scale*
(b). *Ambient / Set-point temperature display*
(c). *Set-point adjustment*
(d). *I.R. Receiver*
(e). *Press to switch between fan speed: Low / Medium / High / Auto Speed*
(f). *Press to switch between modes: Cool / Heat / Fan only / Auto*
(g). *Press to turn system ON or OFF*

System status:

“ON”	Unit ON
“OFF”	Unit OFF

Mode indication:

“Cool”	Cool Mode
“Heat”	Heat mode
“Cool” and “Heat”	Auto mode (the active mode will blink)
“Fan”	Fan only mode

Fan speed indication:

“Lo”	Low speed
“Me”	Medium speed
“Hi”	High speed
“Lo, Me, Hi”	Auto speed (the active speed will blink)

Notes:

- In Auto mode - both "Cool" and "Heat" will appear on display.
- In Auto speed:
  - In 3 speed configuration: "Lo", "Me" and "Hi" will appear on display.
  - In 2 speed configuration: "Lo" and "Hi" will appear on display.
- During demand for cool or heat the active mode will blink.
- Auto Fan:
  - Auto Fan ON: the fan will work only during demand for cooling or heating
  - Auto Fan OFF: the fan will work continuously regardless of demand.
- When the controller is in unoccupied mode:
  - First press on the "On/Off", "Mode" or "Fan" buttons will cause the controller to leave unoccupied mode for a preset duration of time determined through the protocol. On the second press on any of these buttons the Room Module will operate as usual.
  - For set-point adjustment, the "+" or "-" buttons must be pressed three times. The new set-point temperature will take affect for the same preset duration of time determined through the protocol.

Note that the fan speeds and mode selection depends on the configuration of the controller (DIP switch “S2 - CONFIG”). The inapplicable icons will remain on display regardless of the configuration of the controller but their functions will not take affect.

Technical Specifications

Ambient operating conditions	0 to +50 °C, 10 to 90% RH non condensing
Ambient storage conditions	-20 to +70 °C 10 to 90% RH non condensing
Housing material	PC/ABS
Color	White
Supply voltage	11.4 to 15.7 VDC, 25 mA
Temperature sensor	NTC Thermistor 50K@25 °C
Accuracy	±1 °C
Flammability	UL94V-0
Dimensions (L x W x D)	92 x 80 x 22 mm - wall mount
Weight	0.25 Kg
Compliance CE	Johnson Controls, Inc., declares that this product is in compliance with the essential requirements and other relevant provisions of the EMC Directive.